United States Patent

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[72] Inventor **Edmund Jauernik**
Goddelau, Germany

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[73] Assignee **Fernseh G. m. b. H.**
Darmstadt, Germany

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[54] **ARRANGEMENT FOR DERIVING NOISE-FREE SYNCHRONIZING INFORMATION FROM THE SYNC SIGNAL OF A TELEVISION SIGNAL**
2 Claims, 4 Drawing Figs.

[52] **U.S. Cl.** **178/7.3,** 178/69.5, 328/111
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[50] **Field of Search** ..... 178/7.3S, 7.5S, 7.3E, 7.5E, 7.1E, 5.4 sync, 69.5TV; 325/472, 473, 475, 477, 65, 159, 185; 328/162, 164, 108, 165, 111, 112; 307/237, 234, 265; 329/104, 106

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Primary Examiner—Richard Murray
Assistant Examiner—Alfred H. Eddleman
Attorney—Michael S. Striker

ABSTRACT: An electronic circuit arrangement for extracting noise-free synchronizing information from the sync signal of a television signal. The sync signal is applied to a differentiating circuit which provides spike-shaped impulses corresponding to the leading and trailing edges of the sync pulse. The leading or front edge of the pulse after differentiation is used to actuate a timing network in the form of an oscillator circuit or a delay line. The period of oscillation of the oscillator is made equal to the pulse width of the sync pulse. After the spike-impulse has been delayed for the duration of the sync pulse, it is applied to a comparison circuit which has as its second input the trailing edge of the sync pulse. If the two inputs to the comparator circuit occur at the same instant of time, an output is provided by the comparator indicating the presence of this condition. When the delay line is used the delay is made equal to the duration of the sync pulse.